

The effect of ward round teaching on patients: The health team and the patients' perspectives

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ABSTRACT

Introduction: Holding bedside round teaching and involving patients in the teaching of the students might lead to patients' dissatisfaction. This study was carried out in order to find the viewpoints of the patients and the medical team about the effect of clinical round on patients hospitalized in Isfahan University of Medical Sciences. **Materials and Methods:** This study is of cross-sectional descriptive type which is carried out in Isfahan University of Medical Sciences using researcher-made tools. The statistical population included the hospitalized patients, interns, residents, and nurses of the internal wards of educational hospitals. In this study, 110 patients and 150 health team staff are participated. The analysis of the data was done through software Statistical Package for Social Science (SPSS) 11.5 and descriptive and inferential statistics were applied. Statistical analysis of the variance did not show any significant difference among the interns', nurses', and residents' perception of patient's satisfaction. **Results:** Generally, the patients had a positive viewpoint toward things happening during a round, whereas the medical team's viewpoint was negative. In both groups, the highest satisfaction average pertained to the number of times and the duration of visits, but both groups believed that lack of a definite responsible medical doctor, feeling of insecurity during the incongruous and unclear discussions, and the level of respect for the patient were the causes of dissatisfaction with the clinical round process. **Conclusion:** The current method of clinical rounds can result in patients' dissatisfaction. On the other hand, proper relationship with them leads to the development of a more positive attitude in them. Therefore, revision and correction of the current clinical round procedures and teaching the communication skills to the medical team could help improve this process.

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INTRODUCTION

Bedside education is the traditional method of medical education. The clinical skills and competence are taught to the medical students and they apply knowledge to practice while they examine the patient's condition. Treating and educating simultaneously can affect the quality of patient's care.

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The combination of educational and medical duties may delay the caring; and in most cases, the patient is not only ignored during the clinical round and the purpose of things happening during the teaching is not clear-cut to him but also begins to worry about his disease by hearing scientific and unfamiliar words.^[1] In this situation, many people from different ranks such as students, interns, residents, and professors briefly encounter the patient which cannot make a friendly relationship between the doctor and the patient. On the other hand, the students have not yet gained enough skill and accuracy in doing the routine practical proceedings; therefore, potential physical harm worries the patient. The patient expects to be treated by his own medical doctor and when he encounters interns and students who treat and examine him, he feels that his trust has been abused and with the student's several attempts to inject, he sees himself as a tool for the student's practice. Patients feel that their privacy has been disturbed by students' interference and their access to the patients' medical documents and also feel that they are paid no reverence while examination is taught, because their body is exposed to students.^[2]

The above-mentioned worries have made some professors hold the teaching rounds in conference rooms and some others take students to rounds beside the patients' bed without any attempt to teach them. But most professors divide their teaching between the conference rooms and the patient's bed, with allocating most of their time to conference rooms.^[3]

Some studies have shown that if rights of the patients be reserved and they receive human care, they will have a positive view toward involving in clinical rounds. The main reason for their delight is that they feel they have participated in students' learning. When patients observe the care and worry of the medical team for them, they become happy that they have been noticed and find an opportunity to ask their questions. Furthermore, their information about their disease increases during the round and they realize that their feelings and opinions have an influence on making the decisions.^[4-8]

So with regards to contrary results of the above studies, this research is done with the aim of identifying the viewpoint of the patients and medical team about clinical round in internal ward of Al-Zahra Hospital of Isfahan University of Medical Sciences. So via this research, there will be a possibility of correcting the clinical round scheme and process.

MATERIALS AND METHODS

This study was of cross-sectional descriptive type. The statistical population included all the patients hospitalized in internal ward of Al-Zahra Hospital of Isfahan and the medical team (interns, residents, and nurses) of educational hospitals of Isfahan University of Medical Sciences. Method of sampling was convenience. The study was done using researcher-made tools.

For making the work clear, first a brief explanation of the clinical education system in Isfahan University of Medical Sciences will be given. Medical students are divided into three main levels including clinical students, residents, and interns. These three groups are taught by the attending physician of each ward. Each of the three groups is bound to pass various courses in various wards in rotation. Each course lasts for 1 or 2 months.

In this research, data were collected by a questionnaire that designed for study various aspects of the clinical round effect on patients. To make the questionnaire, first similar articles related to the current study were collected and studied. The related items were extracted from the articles and then prioritized. Next, a questionnaire was designed. Upon getting four educational experts' and interns' ideas and revising the proposed items, content validity and face validity of the questionnaire were confirmed. Reliability of the questionnaire was acceptable by the calculation of Cronbach's alpha for three different parts with the alpha amount of 0.63-0.77.

The questionnaire had three parts: The first part included 16 questions which dealt with the satisfaction of samples during the clinical round. The options represented the satisfaction level of the patient (from completely satisfied 5 to completely dissatisfied 1). The overall score was 80 which represented completely satisfied.

The second part included six questions dealing with the record of happening during the hospitalization of the patient based on patients and medical team experiences. The questions of this part surveyed the number of repetitions and the condition of patients' visits by doctors. This group of questions was answered by four options: Always (four), usually (three), sometimes (two), and never (one).

The third part consisted of seven questions which asked about the samples' viewpoint on the effect of clinical round process on patients. This group of questions was answered through the five point Likert scale from strongly agrees (5) to strongly disagree (1). Maximum total score was 35 and minimum was 7.

This questionnaire also asked about demographic information of participants (age, sex, and education).

The self-administered questionnaires were distributed to the patients ($n = 110$) and medical team ($n = 150$) by the questioners. For ethical consideration, at the beginning part of questionnaire, the purpose of the study was explained. In addition, the questionnaires were filled out anonymously.

The questionnaires that were answered incompletely were omitted. The data were analyzed through descriptive and inferential statistics on Statistical Package for Social Science (SPSS) 11. The tests of frequency distribution, mean, standard deviation, and analysis of variance (ANOVA) were also used in this study.

RESULTS

Ten of the questionnaires of the patient samples were omitted. Forty-six percent of the omitted questionnaires were males and 54% were females, so it resulted in a fairly proper proportion. The average age of these people was 49 ± 17 , with the oldest person being 95 and the youngest one 17. With respect to education, 24% of them were illiterate, 44% had finished secondary school, 23% had finished high school, 6% had Bachelor of Arts (B.A.) or Bachelor of Science (B.Sc.), and people with higher degrees formed 3% of the population.

All the medical team participants (150 people) had answered the questionnaires completely and correctly. Fifty of them were interns, 50 residents, and 50 nurses. Gender distribution of clinical students was 46% male and 54% female with the mean age of 20-27 (average age: 22.9). Residents were 56% male and 44% female with the mean age of 23-33 (average age: 25.3). Nurses were 38% male and 62% female with the mean age of 21-55 (average age: 29.3).

Generally, in most cases, the percentage of negative opinions of medical team toward the current method of holding clinical rounds was more than positive opinions. But in contrary, the percentage of positive opinions of the patients was more than the negative ones. The maximum average of patients' satisfaction toward number of times being visited was 3.86 ± 0.12 , toward the duration of contact with the medical doctor was 3.61 ± 0.11 , the minimum average of respect for patients was 3.08 ± 0.13 , and the intelligibility of the discussed matters during the round was 3.33 ± 0.11 [Table 1]. In patients with B.A/B.Sc. or higher levels of education, the satisfaction

level for the number of visits was more (75%), in comparison to illiterates where this level was 63%. Patients' satisfaction with the duration of visits and intelligible discussions in rounds increased with the rise of education level.

The minimum average of medical team satisfaction with the number of examiners in each visit was 2.2 ± 0.1 and with the duration of contact with the main medical doctor was 2.17 ± 0.1 . Maximum average of satisfaction with the number of visits was 2.83 ± 0.98 , with the duration of visits was 2.73 ± 0.09 , and with the accuracy and follow-up of the medical team was 2.86 ± 0.1 [Table 1].

Table 2 shows the list of experienced incidents by the patient during hospitalization. It shows that all the patients have experienced these things several times. The care team emphasized the visit of patients by medical doctor, examining the patients and the fairly constant presentation of many people beside the patient's bed, but the explanation of treatment process to the patient was reported to be less frequent.

Table 3 shows the samples' viewpoint of the effects of clinical round process on the patients. As it can be seen, there is more agreement about the negative effects of the round on patients among medical team, while this agreement is less among the patients and they have a more positive viewpoint. The maximum percentage of agreement among patients was about their need to talk to the medical doctor alone (56%), lack of a single responsible medical doctor (52%) and the feeling of insecurity about being treated by someone other than the medical doctor (45%), and the minimum agreement

Table 1: Percentage, average, and standard deviation of the viewpoints of things happening during rounds

Items	Satisfied [†] completely satisfied		Unsure		Dissatisfied completely dissatisfied		Mean and standard deviation	
	Patient (%)	Medical team (%)	Patient (%)	Medical team (%)	Patient (%)	Medical team (%)	Patient	Medical team
Number of the present people at visit	65	24.7	16	12.7	19	54	0.67±0.13	0.42±0.91
Number of times being visited each day	73	38.7	11	13.3	13	48	0.86±0.12	0.83±0.98
Number of people questioning at each visit	51	24.7	14	20	35	55.3	0.23±0.13	0.53±0.89
Number of examiners in each visit	57	16	14	15.3	29	72	0.32±0.12	0.20±0.81
Duration of each visit	65	33.3	12	20.7	23	46	3.56±0.14	2.73±0.09
Duration of contact with the main medical doctor	64	19.4	10	10	26	70.7	3.61±0.13	2.17±0.10
Explanation of the treatment process to the patient	59	30	13	6.7	28	63.4	3.44±0.12	2.44±0.11
Explanation of diagnostic-surgical proceedings	54	25.4	18	22.7	28	60	3.37±0.12	2.40±0.09
Attention to patient's speech	55	31.3	18	13.3	27	55.4	3.39±0.12	2.64±0.09
Participation of the patient in medical decisions	49	26.3	29	12.7	22	61.3	3.33±0.12	2.37±0.09
Permission of talking about mental-social issues	41	15.4	40	24	19	60.7	3.34±0.12	2.31±0.08
Doing of proceedings by assistants or interns	63	45.3	23	17.3	14	37.3	3.63±0.1	3.03±0.09
Accuratness and keeping track of the medical proceedings	63	36.9	10	13.3	27	45.3	3.53±0.13	2.86±0.10
Establishment of emotional relationship between doctor and patient	60	24.7	21	15.3	19	60.7	3.61±0.13	2.40±0.09
Intelligibility of discussed matters in visit	48	22	30	19.3	22	58.7	3.33±0.11	2.57±0.15
Considering the patient as a human, not a teaching tool	43	26.7	22	12	35	61.3	3.08±0.13	2.46±0.09

[†]The frequency base is from the answerers to the question

Table 2: Frequency distribution of answers to records of things happening during the hospitalization of the patient

Question	Always [†]		Usually		Sometimes		Never	
	Patient (%)	Medical team (%)	Patient (%)	Medical team (%)	Patient (%)	Medical team (%)	Patient (%)	Medical team (%)
Daily visit by attending physician	41	29.3	23	53.3	27	15.3	0	2
Daily examination and gaining the patient's medical history	54	32.7	30	42	15	24	0	1.3
Examining the patient by several people in each visit	39	30.7	46	43.3	13	18.7	0	7.3
Examining the patient by someone of the opposite sex	26	8.7	31	46.7	34	39.3	0	5.3
Presentation of many people beside the patient's bed	41	35.3	32	46	25	10	0	8.7
Explaining the treatment process to the patient	28	11.3	25	21.3	29	49.3	0	18

[†]The frequency base is from the answerers to the question

Table 3: Percentage, average, and standard deviation of viewpoints toward the effects of clinical round process on patients

Items	Agree strongly agree		No opinion		Disagree strongly disagree		Average and standard deviation	
	Patient (%)	Medical team (%)	Patient (%)	Medical team (%)	Patient (%)	Medical team (%)	Patient	Medical team
Feeling of insecurity of being treated by someone other than the main medical doctor	45	67.3	19	13.3	36	19.3	3.16±0.13	3.62±0.09
Undesirable feeling of the patient concerning the reporting of his condition in presence of several people	41	66.7	29	16	30	17.3	3.18±0.13	3.6±0.08
Feeling of insecurity of inconsistent and contradictory discussions	40	65.3	26	21.3	34	13.4	3.01±0.12	3.73±0.09
Need of talking to the main medical doctor alone	56	99.3	20	3.3	4	3.3	4.18±0	4.48±0.06
Indefiniteness of the responsible medical person	52	74.7	29	7.3	19	18	3.53±0.12	4.2±0.07
Feeling of security threatening because of examination in presence of several people	36	83.3	29	9.3	35	7.4	3.05±0.13	4.17±0.07
Feeling that the hospitalization duration got longer due to teaching activities	38	64.7	30	18	32	17.3	3.05±0.14	3.72±0.09

about discomfort for being examined in presence of several people (36%). The maximum percentage of medical team agreement about the patient's need to talk to the medical doctor alone was 99.3% and the discomfort for being examined in presence of several people was 83.3%.

The ANOVA statistical test shows that there was no significant difference between average scores of the viewpoints of the medical team (interns, residents, and nurses) neither on the items nor on the themes of the questionnaire ($P \geq 0.05$).

DISCUSSION

The findings of the present research showed that patients have a fairly positive view about ward rounds. Multiplicity of visits, proper duration of patient's visit with the medical doctor, and accuracy and follow-up of the treatment by medical team had satisfied the patients. Therefore, rounds can have a positive effect on the patients and make them feel that they and their process of treatment are of importance. On the other hand, not letting patients to speak about their psychological problems and their social condition, and also

not allowing them to participate and give their opinions in discussions and decisions which make them feel that their reverence is not saved and they are used as a teaching tool. But indicators such as good relationship with the patient, making the patients participate in making the decisions, paying attention to the patient's worries, hastening to solve the patients' problem, and answering their questions are effective in building a suitable relationship and encourages them to participate in teaching process and learning of the learners.^[9,10]

In the classical study carried out by Romano on 100 patients, 29 of them got anxious or had an undesirable feeling during the clinical round.^[11] The same undesirable feeling or feeling of insecurity about being questioned in crowd or being examined in front of several people was observed in at least 41% of the patients of the present study. It deserves attention that there are also some studies about the physiological effects of clinical round on patients in the form of hypertension and increase in level of catecholamine that confirms the tension of patients during the clinical round.^[12]

The large number of questioners and examiners during the clinical round; no definite medical doctor is assigned to attend to a patient; inconsistent and incongruous discussions beside the patient's bed; and inadequate and unclear explanations of the problem and medical proceedings to the patient cause an increase security threatening in the patients and a distrust about being treated by someone other than the main medical doctor, while literature abounds in emphasis on assigning a doctor and a team to be responsible for providing health care and explaining the procedures for the patient.^[13,14] Clinical round has been considered a way of increasing patient's information of the disease.^[15]

The results of the present study on clinical students, residents, and nurses showed that the aforementioned people had more information about the duties of a doctor and his/her conduct and also had a better understanding of the correct way of doctor's communication and contact with his/her patient than patients themselves. Meanwhile, they are also better informed about the real necessities of medical teaching, so they disagree with doing of the unnecessary processes which causes the patients' discomfort and dissatisfaction. They believe that the tranquility and trust of the patients should be provided without any negative effects on medical students by changing the method of clinical teachings.

In general, similar studies about the viewpoint of the teaching staff, medical staff, care team, and also teams offering medical services toward clinical rounds are handful and this clearly portrays the necessity of more studies and discussions. Furthermore, in these studies, including the present one, small sample sizes have been used. Therefore, it is recommended that more studies with larger sample sizes should be done in other regions.

To improve the efficacy of clinical rounds, it is recommended that the number of visits be reduced by group visit of interns, residents and even assistants at the same time, only applied and practical aspects or particular points be mentioned during the round, and other theoretical issues and discussions about the disease and its treatment be presented in conference rooms, which are considered an alternative to clinical rounds.

In addition, introducing a definite responsible medical doctor at the beginning of the round, keeping poised and patient in answering patients' questions, offering brief explanation of the disease and medical proceedings, and building trust with the patient increase the positive effects of the clinical round. Delegating some diagnostic or medical proceedings to interns or assistants, which causes disorder in the medical process and also using complicated medical words or expressions or discussing miscellaneous things beside patients' bed must be avoided. Furthermore, with patience and kindness, a suitable emotional relationship can be built with the patient and

by paying attention to the patient's mental worries, we can show him that his personality is respected and his rights are reserved.

CONCLUSION

From the viewpoint of the medical team of this study, the current method of clinical round can cause patients' dissatisfaction and can result in undesirable effects. Review and revision of the current clinical round and modifying it by, for instance, reducing the number of visits, transferring theoretical discussions to conference rooms, and making more emotional and caring relationships can improve the current situation and can have positive effects on patients.

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